REMARKS

Claims 26-48 have been rejected under 35 U.S.C. § 112 for indefiniteness as the term "compound" allegedly renders claims 26, 32, 39 and 46 vague and indefinite. In the amended claims, the term "material" has been substituted for "compound" as per the Examiner's suggestion. Descriptive basis for this term may be found in the specification at page 3, line 9. No new matter has been added nor has the scope or meaning of the claims been changed by this amendment.

The claims have also been amended to clarify that the formulation is surfactant-free. Descriptive basis for this amendment may be found at page 2, line 2. The claims have further been limited to those comprising a *cationic* starch-encapsulated hydrophobic material. Descriptive basis for this amendment may be found at page 3, line 4 and page 5, line 30.

Claims 26-28, 39-42 and 46-48 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Eskins, et al. (US 5,676,994) in view of Macaulay (US 6,362,146). Eskins teaches a non-separable unmodified starch-oil composition useful for food, agriculture, or pharmaceutical and cosmetic carriers or vehicles. In contrast, the present invention teaches the advantages of using a cationic starch. For examples, see page 5, line 29, et seq. which states "hydrophobic compounds encapsulated with a cationically modified starch advantageously adhere to anionic substrates such as hair and skin. This increases the amount of contact between the hydrophobic compound and skin or hair, which aids in rinse-off and rub-off protection. This property allows for the same level of performance using less of the hydrophobic compound." This advantage of cationic modified starch is evidenced by Examples 8 and 9. Example 8 shows that the cationic starch resulted in an intensity value of 17.53 compared to 1.99 for the unmodified starch, an eight-fold increase in substantivity to the substrate. Example 9 shows a wet combing force reduction of 60% for the cationic starch compared to only 17% for the unmodified starch, about a four-fold improvement. Thus, the superiority of the cationic starch over the unmodified starch is clear.

Macaulay does not remedy this deficiency as it teaches sunscreens that are encapsulated in waxes and oils, not in cationic starch. Thus, combining Eskins and Macaulay would not result in the present invention as there is no teaching of cationic starches. Further, Applicant has found that sunscreen actives encapsulated in starch as claimed do not feel greasy or oily, and do not have visible residues. The presently

claimed starch encapsulate provides a smooth after-feel, with a soft or silky feel. (see page 5, lines 16 –19 of the specification). The Eskins' reference, in combination with the Macauley reference fail to teach or suggest all of Applicants claim limitations and therefore fails to present a *prima facie* case of obviousness.

Claims 29-31 and 43-45 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Eskins, et al. (US 5,676,994) in view of Macaulay (US 6,362,146) and further in view of Ashley ("Sunburn and Sunscreen Preparations", Poucher's Perfumes, Cosmetics and Soaps). As described above, the combination of Eskins and Macaulay does not obviate the presently claimed compositions in which a cationic starch is used. Ashley is cited as a secondary reference to teach the water content in cosmetic compositions and does not remedy the deficiencies of the primary references. Ashley describes oil/water and water/oil emulsions in the form of creams and lotions. These compositions require emulsifiers or surfactants for particle stability. In contrast, the personal care formulations of the present invention do not contain surfactants which can result in irritation and allergic reactions.

There is no teaching or suggestion in the Ashley reference to any starch encapsulation of an active, and thus the Ashley reference fails to heal the defects in the Eskins and Macauley reference to teach or suggest all of Applicants claim limitations. Further, one skilled in the art would not combine Ashley which requires emulsifiers or surfactants to result in the presently claimed surfactant-free composition.

Claims 32-38 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Eskins, et al. (US 5,676,994) in view of Van Soest (US 6,340,527) and Fletcher, et al. (US 6,261,543). The defeciencies of Eskins are detailed above.

The Examiner uses the Van Soest reference to remedy this deficiency. To begin , Van Soest uses surfactants to promote formation of the emulsion. In contrast, the presently claimed invention is surfactant-free. The skilled artisan would not combine Van Soest which requires emulsifiers or surfactants to result in the presently claimed surfactant-free composition.

Further, Van Soest describes microparticles that contain an active ingredient in a starch shell, stating that any granular starch can be used and listing numerous suitable derivatives, including oxidized starch, carboxy starch, dialdehyde starch, carboxyalkylated starch, sulphated starch, phosphated starch, cationic starch, and the like. The starch particles can be used in cosmetic applications. While cationic

starches are listed in a laundry list of possible starches, there is no recognition that a cationic starch has the superior attributes recognized in the present invention.

The Examiner was not convinced. However, it is not simply "four or five different types of starch" which are listed, but substantially all starch derivatives which meet the granular retention preference of the Van Soest invention. Van Soest treats all these starches equally, despite their widely varying functionality and no suggestion is given to chose the cationic starches as being superior for a personal care application. If anything, the reference teaches the preference of using phosphated starches as this starch is used in all the examples. The Examiner further states "that cationic starch is old and well-known in the art." Applicants do not disagree with this fact, only that it would not have been obvious to use them in the Eskins reference to impart the superior attributes of the present invention.

There is also no motivation to use the emulsion method described in the Van Soest reference to produce starch-encapsulated hydrophobic compounds that are non-separable in a personal care or cosmetic aqueous formulation. Indeed, the Van Soest reference is focused on forming particles using granular starch, while the Eskins reference demonstrates that starch-encapsulated particles formed by the emulsion process of the Van Soest reference do not form stable, aqueous formulation. Eskins uses non-granular starch to encapsulate. There is no motivation to combine these references which use different starch types (granular v. nongranular) and encapsulation methods, and specifically choose a cationic starch. The fact that Van Soest uses surfactants to promote formation of the emulsion would further keep the skilled artisan from combining these references to result in the presently claimed invention.

The Fletcher reference is a secondary reference cited to show the use of a cationically-modified starch in an anti-perspirant. The Fletcher reference does not disclose an aqueous formulation. The Fletcher reference fails to disclose a starch-encapsulated hydrophobic compound, or a stable aqueous personal care or cosmetic formulation, and therefore fails to correct the deficiencies of the other cited references. Fletcher also uses a surfactant. Thus, Fletcher does not remedy the deficiencies of Eskins and does not obviate the present invention in view of the primary references as one skilled in the art would not be motivated to combine Fletcher with Eskins due to these numerous differences.

Claims 36-38 have been rejected as being unpatentable over Eskins, et al. (US 5,676,994) in view of Van Soest (US 6,340,527) and in further view of Ashley ("Sunburn and Sunscreen Preparations", Poucher's Perfumes, Cosmetics and Soaps). The deficiencies of Eskins, Ashley and Van Soest have been detailed above as well as why the skilled artisan would not be motivated to combine them to result in the present invention. The combination of these references fails to teach or suggest all of Applicants claim limitations.

In view of the foregoing, Applicant submits the Application is now in condition for allowance and respectfully requests early notice to that effect.

Respectfully submitted,

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